

REMARKS/ARGUMENTS

Claims 1-30 are pending in the present application.

This Amendment is in response to the Office Action mailed September 17, 2003. In the Office Action, the Examiner rejected claims 1-5 and 11-15 under 35 U.S.C. §102(b); and claims 6-10 and 16-30 under 35 U.S.C. §103(a). Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 102(b)

In the Office Action, the Examiner rejected claims 1-5 and 11-15 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,996,061 issued to Lopez-Aguado et al. ("Lopez-Aguado"). Applicants respectfully traverse the rejection and contends that the Examiner has not met the burden of establishing a prima facie case of anticipation.

Applicants reiterate the arguments set forth in the previously filed Response to the Office Action. Applicants request the Examiner to specifically address the following items.

1) The inherency of gating circuit in terminating prefetches.

In the Office Action, the Examiner states that a gating circuit is required to achieve the termination of prefetching based upon an address being found in the queue. However, the supplied Microsoft Press Computer Dictionary ("Microsoft") does not provide any definition that relates a gating circuit to the termination of prefetching based upon an address being found in the queue. Microsoft merely states "a gating circuiting acts as an electronic switch that either passes or does not pass its input signal, depending on the state of a control signal."

Furthermore, the Examiner has not identified elements in Lopez-Aguado that correspond to an input signal to the gating circuit and the control signal. In essence, the Examiner states that if any process that needs to be terminated based on the presence of a variable in a storage, then a gating circuit is inherently required. This argument or characterization has no basis and flawed because it does not identify the signal to be gated and the output signal of the gating circuit (if indeed it is required).

2) The Examiner did not address specifically to all the issues presented in the previous response.

The Examiner did not address at least two issues (1) Lopez-Aguado merely discloses a derived prefetch address, not a prefetch address, and (2) Lopez-Aguado does not disclose when the access matches to at least P of the stored prefetch addresses. As discussed in the previous response, the derived prefetch address is derived from the extracted physical address by adding a stride to the extracted physical address (Lopez-Aguado, col. 7, lines 18-20). Furthermore, Lopez-Aguado merely discloses "if the derived prefetch address is already stored within the prefetch queue...", not if the access request matches at least P of the stored prefetch address.

Where a claim is refused for any reason relating to the merits thereof, it should be "rejected" and the ground of rejection fully and clearly stated. See MPEP 707.07(d). Where the Applicants traverse an objection, the Examiner should, if he or she repeats the rejection, take note of the Applicants' argument and answer the substance of it. See MPEP 707.07(f). It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the Applicants can be given fair opportunity to reply. See MPEP 706.02(j).

The Examiner should set forth in the Office Action the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate. See MPEP 706.02(j). The goal of examination is to clearly articulate any rejection early in the prosecution process so that the Applicants have the opportunity to provide evidence of a patentability and otherwise reply completely at the earliest opportunity. See MPEP 706.

The Examiner repeated the rejection without taking note of the Applicants' arguments and without answering the substance of Applicants' arguments as presented in the response filed on June 5, 2003. The MPEP requires that the Examiner's action will be complete as to all matters. 37 CFR 1.104; MPEP 707.07.

Therefore, Applicants believe that independent claims 1, 11, 21 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §102(b) be withdrawn.

Rejection Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected claims 6-10 and 16-30 under 35 U.S.C. §103(a) as being unpatentable over Lopez-Aguado in view of U.S. Patent No. 6,134,633 issued to Jacobs ("Jacobs"). Applicants respectfully traverse the rejection and contend that the Examiner has not met the burden of establishing a prima facie case of obviousness.

Applicants reiterate the arguments set forth in the previously filed Response to the Office Action.

Jacobs discloses a prefetch management in cache memory. A prefetch memory supports discarding of prefetch addresses that are associated with operations executed by the processor such as by employing a fully associative prefetch memory when comparing addresses of cache access operations to the addresses held in the prefetch memory (Jacobs, Col. 7, lines 4-10).

Lopez-Aguado and Jacobs, taken alone or in any combination, does not disclose, suggest, or render obvious a gating circuit to disable an access request to a memory when the access request is canceled. There is no motivation to combine Lopez-Aguado and Jacobs because neither of them addresses the problem of gating the access request to disable the access request to a memory. There is no teaching or suggestion that a gating circuit is present. Lopez-Aguado and Jacobs, read as a whole, does not suggest the desirability of gating the access request. Furthermore, Jacobs merely discloses using a fully associative prefetch memory when comparing the addresses of cache access operations, not comparing a prefetch access request.

Therefore, Applicants believe that independent claims 1, 11, and 21 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §102(b), and 35 U.S.C. §103(a) be withdrawn.

Conclusion

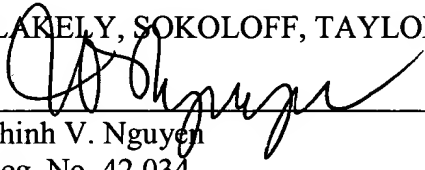
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 12/05/2003

By


Thinh V. Nguyen

Reg. No. 42,034

Tel.: (714) 557-3800 (Pacific Coast)

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8A)

I hereby certify that this correspondence is, on the date shown below, being:


MAILING

FACSIMILE

☒ deposited with the United States Postal Service
as first class mail in an envelope addressed to:
Commissioner for Patents, PO Box 1450,
Alexandria, VA 22313-1450.

☐ transmitted by facsimile to the Patent and
Trademark Office.

Date: 12/05/2003


Tu Nguyen

12/05/2003

Date